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CO

Results of large-scale tests on flotation of Khibin apatite ore with peat tar. P.I. Triplov. *Gorno-Oboagitelnoe Delo* 1932, No 4-5, 37-8. — Starting material was apatite contg. 30% P_2O_5 . Optimum results obtained were a concn. representing 72.05% by wt. of original material and contg. 39.69% P_2O_5 . Reagents used, per ton of ore, were tar 3 kg., water glass 150 g. and NaOH 75 g. S. L. MADORSKY

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND PRIORITIES		PROCESSING AND PROPERTY INDEX		JOB AND STD CODES	
3C		Preparation of magnesium oxide from brine. O. B. MEDVEDEV and M. D. TUMSOV (J. Chem. Ind. Russ., 1935, 12, 697-699).—The chief difficulties in the prep. of MgO from natural salines, by the reactions $MgSO_4 +$ $CaCl_2 \rightarrow CaSO_4$ (I) + $MgCl_2$; $MgCl_2 + Ca(OH)_2 \rightarrow$ $CaCl_2 + Mg(OH)_2$ (II), lie in the slow rate of sedi- mentation of (I) and (II), and in the formation of imper- meable layers when the pptn. are filtered. Max. velocity of sedimentation and filtration of (I) is obtained when the $[MgSO_4]$ is $> 5\%$, using somewhat $<$ the equiv. amount of $CaCl_2$ at room temp. The rate of filtration of (II) falls rapidly with time after pptn., and with increasing $MgCl_2$. The cost of $MgCl_2$ so prepared is $>$ that of $MgCl_2$ derived from magnesite. H. T.		B-I-8	
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION					
SOURCE NUMBER		SUBJECT		REMARKS	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	

TRUSOV, A., polkovnik

Our experience in building shallow water bridges during the attack.
Voen.-inzh. zhur. 102 no.6:23-26 Ja '58. (MIRA 11:6)
(Military bridges) (Attack and defense (Military science))

TRUSOV, A., polkovnik.

Fastening trestles to the floating part of combination bridges.
Voen.-inzh. zhur. 101 no. 5:15-17 My '57. (MLPA 10:6)
(Military bridges)

TRUSOV, A., inzh.

Searching, always searching. NTO 5 no.4:28 Ap '63. (MIRA 16:3)

1. Nachal'nik opytno-konstruktorskogo tsekha Chelyabinskogo
zavoda "Khimprom".
(Chelyabinsk—Chemical industries)

TRUSOV, A.A.

Increasing the durability of gauges. Avt. prom. 30 no.8:40-41
Ag '64.. (MIRA 17:11)

TRUSOV, A.I.

Hard alloys for reducing parts. Avt. prem. 30 no. 1043-44 0 164.
(MIRA 1973)

TOLSTOY, N.A.; IMIL'KO, G.I.; RYSKIN, A.I.; TRUSOV, A.A.

Relation between luminescent and photoelectric phenomena
in ZnS-Mn. Fiz. tver. tela 4 no.11:3177-3184 N '62.
(MIRA 15:12)

1. Gosudarstvennyy opticheskiy institut imeni
S.I. Vavilova, Leningrad.

(Luminescent substances)
(Photoelectricity)

LOSKUTOV, Vasiliy Vasil'yevich; TRUSOV, A.A., inzh., retsenzent;
DUGINA, N.A., tekhn. red.

[Polishing of metals] Shlifovanie metallov. Izd.4., perer.
Moskva, Mashgiz, 1962. 279 p. (MIRA 15:12)
(Grinding and polishing) (Metals—Finishing)

TRUSOV, A.A.

Increasing the wear resistance of broaches. Avt. prom. 31 no.9:
34-36 S '65. (MIRA 18:9)

L 9887-66 EWT(1)/EWT(m)/T DS/WW

ACC NR: AP5027681

SOURCE CODE: UR/0051/65/019/005/0826/0828

AUTHOR: Tolstoy, N. A.; Spartakov, A. A.; Trusov, A. A.

ORG: none

TITLE: Electro-optical effect in a rotating electrical field and a stable electrical dipolar moment in colloidal particles

SOURCE: Optika i spektroskopiya v. 19, no. 5, 1965, 826-828

TOPIC TAGS: colloid chemistry, electric field, electric effect, thermal optic effect, dipole moment

ABSTRACT: In a dispersion medium containing polar molecules (as in water), colloidal particles of different nature caused a sharply expressed electro-optical effect when this colloidal solution was placed in a field of alternating rectangular electrical pulses. This effect was associated with a change in time of the orientation of colloidal particles. The latter caused a changeable dichroism which was, as a rule, conservative, and not consumptive. A comparison of light-modulation curve phases with the electrical voltage curve indicated that colloidal particles

1/2

UDC: 535.347

L 9887-66

ACC NR: AP5027681

in a polar dispersion medium possess a stable electric dipolar moment. The scanning of the light modulation curve on a oscillograph give a Lissajous figure of the second order. Dichroism in oriented particles could be determined by polarization measurements of the colloidal solution in a laminar flow. Orig. art. has: 1 figure.

SUB CODE: 20/
07/ SUBM DATE: 13Apr65/

NR REF SOV: 004/ OTHER: 000

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2/2

TRUSOV, A.A.

Increasing the strength of rolling tools. Avt. prom. 30
no.6:35-36 Je '64. (MIRA 17:12)

ALINOV, A.S. inzh.; KARPENKO, L.G., inzh.; TARASOVA, L.P., inzh.;
TIKHOMIROVA, K.A., inzh.; BRILOV, N.T., inzh.; YUDIN, V F.,
inzh.; SOBINOVA, L.I., inzh.; TRUSKO, A.A., inzh.

Rapid bottom pouring of killed steel. Stal' 25 no.3:
230-231 Mr '65. (MIRA 18:4)

43119
S/181/62/004/011/018/049
B104/B102

AUTHORS: Tolstoy, N. A., Khil'ko, G. I., Ryskin, A. I., and Trusov, A. A.

TITLE: The relation between the luminescence and photoelectric properties in a ZnS-Mn phosphor .

PERIODICAL: Fizika tverdogo tela, v. 4, no. 11, 1962, 3177 - 3184

TEXT: The object here is to establish quantitative and kinetic relations between photoelectric aspects and the luminescence of the photo-semiconduction mechanism in the ZnS-Mn phosphor, which has the property of scintillative deexcitation of luminescence. ZnS-Mn (10^{-3} g/g) placed in a capacitor is excited by two successive light flashes from two flash lamps positioned in front of a concave mirror. The interval between the light pulses is varied automatically from 0.1 to 10 sec. Intervals greater than 10 sec are regulated by hand. The first ultra-violet light pulse produces in the capacitor a current pulse corresponding to the motion of electrons in the direction of the incident beam. The second yellowish-green light pulse produces a signal whose amplitude depends on the time interval $t_{\text{dark}} \equiv t_d$ between the two light pulses. It reaches a maximum for a certain time

Card (1/3)

S/181/62/004/011/018/049
B104/B102

The relation between the luminescence...

interval t_{\max} . t_{\max} increases rapidly with decreasing temperature; for $t_{\max} \rightarrow \infty$ the signal amplitude becomes zero. For $t_d \ll t_{\max}$ the signal excited by the second pulse has opposite sign to that excited by the first light pulse. With increasing t_d ($t_d \ll t_{\max}$) the signal of the second pulse becomes negative and goes through a maximum. The amplitude of the signal of the second light pulse is proportional to the light pulse but is independent of the ultra-violet light impulse. The signal of the second light impulse arises from the density gradient of the carriers localized in the excited state. The signs of the signals are the same for both light pulses. If, in the interval between the light pulses, infra-red light falls on the phosphor, t_{\max} becomes shorter. Further, t_{\max} depends on T in practically the same way as the scintillative deexcitation of the red luminescence band of this phosphor. Both effects are interpreted as being due to the relocalization of the holes from the centers of the blue luminescence to those of the red. The depth of the "blue" hole levels is 0.67 eV and their frequency factor is $\approx 0.7 \cdot 10^{13} \text{ sec}^{-1}$. There are 4 figures.

Card 2/3

The relation between the luminescence...

S/181/62/004/011/018/049
B104/B102

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S. I. Vavilova,
Leningrad (State Optical Institute imeni S. I. Vavilov,
Leningrad)

SUBMITTED: June 21, 1962

Card 3/3

TRUSOV, A.A., inzh.

Increasing the durability of boring bits. Gor.zhur. no.1C:71-72
O '64. (MIRA 18:1)

TRUSOV, A.N.

KAMPH-NEMM, A.A.; TRUSOV, A.N.

Simple method of increasing the accuracy of two position temperature control. Trudy LO NTO Priborprom, no.3:76-93 '56.
(Temperature) (Automatic control) (MIRA 10:8)

DESYATCHIKOV, B.A., kand. ekon. nauk; GABZAILOV, G.F., kand. ekon. nauk; KADYROV, Z., nauchn. sotr.; ABDUSHUKUROV, T.; KALYAKIN, P.V., kand. ekon. nauk; FOKIN, A.I., kand. ekon. nauk; BAKIYEVA, R.A., nauchn. sotr.; IERAGIMOV, M., nauchn. sotr.; KARDASI, A.A., kand. ekon. nauk; KADANER, E.A.; NIKONOV, F.D., nauchn. sotr.; ANTONETS, G.M.; ARTYKOV, A.A., kand. ekon. nauk; TRUSOV, A.N.; OVCHAROVA, M.A., nauchn. sotr.; TSOY, P., nauchn. sotr.; KALYAKIN, P.V., kand. ekon. nauk, otv. red.; DZHAMALOV, O.B., doktor ekon. nauk, red.; ARTYKOV, A., kand. ekon. nauk, red.; DESYATCHIKOV, B.A., kand. ekon. nauk, red.; SHARIFKHODZHAYEV, M., kand. ekon. nauk, red.; DESYATNIK, F.M., red.; GOR'KOVAYA, Z.P., tekhn. red.

[Economics of the machinery manufacture of Uzbekistan] Ekonomika mashinostroeniia Uzbekistana. Tashkent, Izd-vo AN Uzb.SSR, 1963. 289 p. (MIRA 16:12)

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki. (Uzbekistan--Machinery industry)

TRUSOV, A.Ya.

Malt dryer without a heater. Spirt. prom. 27 no.6:37-39 '61.
(MIRA 14:9)

(Malt) (Drying apparatus)

TRUSOV, A. Ya., inzh.

Method for gluing plaster board on brick and concrete surfaces.
Suggested by Trusov, A.IA. Rats.i izobr.predl.v stroi. no.13:
53-56 '59. (MIRA 13:6)

1. Trest Altaysvinetsstroy Ministerstva stroitel'stva KazSSR,
g.Ust'-Kamenogorsk Vostochno-Kazakhskoy oblasti.
(Plaster board)

TRUSOV, F., starshiy mekhanik

Testing boilers of the steamship "Jean Juarez" with manual and automatic regulation of fuel consumption. Mor. flot no.6
supplement:15-17 '59. (MIRA 12:9)

1. Parokhod "Zhan Zhores." (Boilers, Marine--Testing)

TRUSOV, GRIGORIY MARTINOVICH

N/5
361.5
.T8

Podvodnyye lodki v Russkom i Sovetskom flote Submarines in the Russian
and Soviet Fleet Leningrad, Sudpromgiz, 1957.

3838p. illus., Diagrs., tables.
"Literatura" p. 380-381

TRUSOV, Grigoriy Martynovich; MISHKEVICH, G.I., red.; FRUMKIN, P.S., tekhn.
redja

[Submarines in the Russian and Soviet Navy] Podvodnye lodki v russkom
i sovetskom flote. Leningrad, Gos. soizusnoe izd-vo sudostroit. pro-
myshl., 1957. 383 p. (MIRA 11:7)

(Submarine boats)

TRUSOV, Grigoriy Martynovic [1889-1960]; ZALESSKIY, N.A., kand. tekhn. nauk, retsenzent; MATVEYEV, V.I., kontr-admiral, retsenzent; YEGOROV, S.A., nauchn. red.; KAZANOV, Yu.S., red.; KOROVENKO, Yu.N., tekhn. red.

[Submarine boats in the Russian and the Soviet fleets] Podvodnye lodki v russkom i sovetskom flote. Izd.2., ispr. i dop. Leningrad, Sudpromgiz, 1963. 439 p. (MIRA 17:2)

AM4G33668

BOOK EXPLOITATION

S/

Trusov, Grigoriy Martyanovich (Engineer, Commander)

Submarines in the Russian and Soviet fleets (Podvodnyye lodki v russkom i sovet'skom flote). [2d ed., rev. and enl.] Leningrad, Sudpromgiz, 63. 0439 p. illus., biblio., indices. Errata slip inserted. 8,400 copies printed.

TOPIC TAGS: submarines, submarine building, Russian submarine building, Russian submarine history

PURPOSE AND COVERAGE: The book presents systematized and generalized material on the history of submarine construction, based on a long study of archives, written by a veteran of 40 years submarine service. The book covers the entire history of the development of the Russian submarine building. It is designed for many workers in the ship building industry, sailors, students in shipbuilding institutes and in technical schools, as well as for the general reader interest in the history of the Russian fleet. The publisher is grateful to Candidate of Technical Sciences N. A. Zalesskiy, Rear Admiral A. I. Rodionov, Rear Admiral V. I. Matveyev, Engineer Rear Admiral V. Ya. Balakirev, Captain of First Rank A. N. Lushnikov, Captain of First Rank Yu. A. Maksimov, Engineer D. N. Polyakov, Captain of Third Rank V. M. Mostseyev, Engineer F. K. Dromidontov, Captain of Third Rank M. I. Khametov,

Card 1/3

AM4033668

Warrant Officer I. N. Revenko, Reserve Warrant Officer L. A. Vlasov, V. I. Orlov, and Yu. I. Zubov for providing material and great help.

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AM4033658

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SUB CODE: WA

SUBMITTED: 10Oct63

NR REF SOV: 027

OTHER: 001

DATE ACQ: 16Apr64

Card 3/3

S/075/60/015/02/04/004
B005/B006

AUTHORS: Trusov, G. N., Aladzhalova, N. A.

TITLE: On the Determination of Tritium ✓

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 2,
pp. 238-239

TEXT: The authors of the present paper designed a unit for determining tritium in the form of water vapor. A scheme of the unit is given in a figure and described. Metallic counters with internal filling of type CSM-7 (SBM-7)²⁸ were applied. Isopentane under a pressure of 16-18 mm torr was used as filling agent. Since isopentane dissolves vacuum grease, a special cock (depicted in a figure) was designed for introducing the isopentane. A butyl phthalate manometer, which is also shown graphically, was used for measuring low water vapor pressures. Since part of the water vapor condenses on the walls of the counter, the number of counts changes noticeably in the course of time (Fig. 5). Since the degree of condensation is strongly dependent on the temperature, the counter must

Card 1/2

On the Determination of Tritium

S/075/60/015/02/04/004
B005/B006

be kept at constant temperature, to enable condensation to be taken into account. In the unit designed by the authors, the counter was heated to 30°C by applying a current with an amperage of 30 a. The temperature was easily kept constant by means of a ЛАТР (LATR). For measurement, first the sample and then the isopentane were introduced into the counter. The activity of the isopentane-water-vapor mixture was measured after 25 min. After standardizing all operations involved in the tritium determination, the relative measuring accuracy was 7%. The characteristic of the counter is considerably impaired by the presence of small quantities of air. After discharge, the characteristic of the counter can be re-established by heating to $250 - 300^{\circ}\text{C}$ under continuous evacuation. There are 5 figures and 2 non-Soviet references.

SUBMITTED: June 30, 1958

Card 2/2

TRUSOV, G.N.; ALADZHALOVA, N.A.

Palladium cathode. Separation and exchange of hydrogen isotopes
Zhur. fiz. khim. 34 no. 11:2521-2529 N '60. (MIRA 14:1)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova.
(Electrodes, Palladium) (Hydrogen—Isotopes)
(Isotope separation)

17 18

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SOV/20-130-2-36/69

5(4)

AUTHORS: Trusov, G. N., Aladzhhalova, N. A.

TITLE: Exchange of Hydrogen Isotopes¹⁷ on Palladium

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 2,
pp 370 - 373 (USSR)

ABSTRACT: The investigation was carried out by the authors with a view of obtaining experimental data permitting a comparison between the true rate of the hydrogen exchange on palladium with such exchange rates as have been calculated by extrapolation of the overvoltage¹⁷ and ionization curve on to the overvoltage corresponding to equilibrium. The experimental apparatus shown in figure 1 is described: An electrolytic polyethylene cell consisting of three parts with two clamped-in palladium membranes. One of the palladium cathodes was constantly saturated with hydrogen by cathodic polarization of its rear side. The following reactions were investigated: $1) \text{Pd(H)}_n + \text{D}_2\text{O} \rightarrow \text{Pd(H)}_{n-1} \text{D} + \text{HDO}$. In this case, solutions of KOD and D_2SO_4 were used, and the separated hydro. 4

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Exchange of Hydrogen Isotopes on Palladium

SOV/20-130-2-36/69

gen was analyzed by means of a mass spectrometer. 2)

$$\text{Pd(H)}_{n-1}\text{T} + \text{H}_2\text{O} \longrightarrow \text{Pd(H)}_n + \text{T}^+\text{HO}^-$$
 Here the hydrogen adsorbed on Pd was marked by means of potash lye enriched in tritium (0.2 Curie/cm^2) and the activity of the solution into which T goes over, was measured by means of Geiger-Müller counters. The experimental results obtained are shown in tables 1 and 2 as well as in figure 2. On all electrodes investigated the rate of isotope exchange was two to three times higher than the rate extrapolated from the overvoltage curve. The following explanation of these results is suggested: The water molecule (or the hydroxonium ion) is adsorbed on the hydrogen-saturated palladium in such a manner that a H-atom is located immediately on the metal surface. This H-atom is separated and replaced by a H-atom of the adsorption layer. A chemical exchange reaction thus occurs, which is independent of the potential jump between metal and solution. The exchange rate depends on the capability of the surface of adsorbing water molecules. The authors then mention an oral interpretation of their experimental results given by A. N. Frumkin by means of electrochemical

Card 2/3

Exchange of Hydrogen Isotopes on Palladium

SOV/20-130-2-36/69

desorption. It is mentioned that the authors thank Professor V. I. Veselovskiy for his interest in the investigation. There are 2 figures, 2 tables, and 6 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut
im. L. Ya. Karpova (Scientific Research Institute for
Physical Chemistry imeni L. Ya. Karpov)

PRESENTED: July 18, 1959, by A. N. Frumkin, Academician

SUBMITTED: June 25, 1959

Card 3/3

TRUSOV, G.N.; ALADZHALOVA, N.A.; VESELOVSKIY, V.I.

Separation of hydrogen isotopes on a palladium cathode. Dokl.AN
SSSR 138 no.6:1385-1388 Je '61. (MIRA 14:6)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. Predstavleno
akademikom A.N.Frumkinym.
(Hydrogen—Isotopes)

Card 1/3

"APPROVED FOR RELEASE: 03/14/2001

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APPROVED FOR RELEASE: 03/14/2001

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APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756820018-3"

SAVVIN, L., inzh. (Moldaviya); YEKHLAKOV, A., inzh. (Sverdlovsk);
TRUSOV, I., inzh. (Frunze); IVANOV, N., PLAKSEYEV, G. (Kherson);
KNOROZ, M. (L'vov); GROMENKO, P., rabochiy (Novosibirsk);
TARASOV, O. (Novoroossiysk); D'YAKOV, P., inzh. (Kamensk-
Shakhtinskiy); BUTUSOV, V., dotsent (Moskva); SUNDAKOV, M.,
inzh., student; PORTNOV, Ya., kand. tekhn. nauk (Makhachkala);
PETROV, Yu., inzhener-stroitel' (Ivanovo)

Readers argue, agree, advise. Tekh. mol. 31 no.6:6-9 '63.
(MIRA 16:7)

1. Starshiy inzhener Usol'skogo mashinostroitel'nogo zavoda
(for Ivanov).
2. Moskovskoye vyssheye tekhnicheskogo
uchilishche imeni Baumana (for Butusov).
3. Zaochnoye otdeleniye
fakul'teta zhurnalistiki Leningradskogo gosudarstvennogo
universiteta (for Sundakov).
(Technological innovations)

TRUSOV, I. A.; FEDORYCHEV, A. M.

Drilling inclined holes with cable drilling rigs. Razved. i
okh. nedr 28 no.5:53-54 My '62. (MIRA 15:10)

1. Gidroproyekt.

(Boring machinery)

TRUSOV, I.A.

Magnetic cork for piezometric wells. Razved i okh. nedr 23 no.9:44-45
S '58. (MIRA 11:12)

1.Gidroproyekt.

(Water, Underground)

TRUSOV, I.A.
VOZDVIZHENSKIY, Boris Ivanovich, prof.; VOLKOV, S.A., dots.; FILATOV, B.S., dots.; LYUBIMOV, M.I., kand.tekhn.nauk; TRUSOV, I.A., inzh.; BORAVLEV, V.A., nauchnyy red.; NEKRASOVA, N.B., red.; GUROVA, O.A., tekhn.red.

[Core drilling in prospecting] Razvedochnoe kolonkovoe burenie.
Pod obshchey red. B.I.Vozdvizhenskogo. Moskva, Gos. nauchno-
tekhn.izd-vo lit-ry po geol. i okhrane neдр, 1957. 591 p. (MIRA 11:4)
(Boring)

AUTHOR: Trusov, I.A.

SOV-132-58-9-11/18

TITLE: A Magnetic Plug for Piezometric Bore Holes (Magnitnaya probka dlya pyezometricheskikh skvazhin)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 9, pp 44-45 (USSR)

ABSTRACT: The author describes a magnetic plug devised by A.N. Shevchenko, a collaborator of the Gidroproyekt, to protect piezometric bore holes from stoppage. It consists of a ring into which a round piece of metal is fixed. It is then driven into the pipe of the bore hole. The devise can be pulled out by a magnet.
There is 1 diagram.

ASSOCIATION: The Gidroproyekt

1. Geophysical prospecting--USSR
2. Pipe fittings--Design
3. Magnets--Applications

Card 1/1

TRUSOV, I.A.; KOPACHEV, A.M.

BUK-75, the new cable-rotary drilling rig. Razved.i okh.nedr 23
no.8:22-26 Ag '57. (MIRA 10:11)

1. Gidroproyekt.

(Boring machinery)

FEDORENKO, Nikolay Trofimovich; TRUSOV, I. E., redaktor; MOROZOV, V. I.,
redaktor; KOMI, V. G., tekhnicheskii redaktor.

[Chinese notes] Kitaiskie zapisi. Moskva, Sovetskii pisatel',
1955. 534 p. (MLRA 8:11)
(China--Description and travel)

TRUSOV, I.I. (Kiyev)

For the first time in fifty years. Priroda 51 no.5:66 My '62.
(MIRA 15:5)

(Kiev--Frost)

TRUSOV, I.I.

An outstanding case of glaze in the Ukraine from the 13th to the
15th of November 1961. Meteor.i gidrol. no.11:50-51 N '62.
(MIRA 15:12)

1. Kiyevskaya gidrometeorologicheskaya observatoriya.
(Ukraine—Ice)

L 41594-66 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) AI/JD

ACC NR: AP6018546

SOURCE CODE: UR/0181/66/008/006/1823/1833

AUTHOR: Vasil'yev, A. M.; Trusov, L. I.

ORG: All-Union Scientific-Research Institute of Current Sources, Moscow (Vsesoyuznyy nauchno-issledovatel'skiy institut istochnikov toka)

TITLE: Contribution to umklapp processes in intervalley transitions and absorption by free electrons in n-Si¹

SOURCE: Fizika tverdogo tela, v. 8, no. 6, 1966, 1823-1833

TOPIC TAGS: silicon semiconductor, semiconductor band structure, carrier scattering, semiconductor carrier, electron interaction, phonon interaction group theory

ABSTRACT: To check on a hypothesis first advanced by W. Harrison (Phys. Rev. v. 104, 1281, 1956) that the mobility and scattering of the electrons in silicon are governed primarily by the umklapp processes and by intervalley scattering, the authors evaluate the contribution of the umklapp processes by determining the matrix elements for electron-phonon interaction that leads to the umklapp processes and to the intervalley transitions. The valleys from which transitions are possible by means of a selected reciprocal-lattice are determined, and the matrix elements for the transition from the given initial state to the given final state, in terms of different reciprocal-lattice vectors, are written out. The possible corresponding transitions are tabulated, and group theory is used to separate the nonvanishing matrix elements and to ascertain the oscillations that cause the scattering leading to intervalley transi-

Card 1/2

. L 41594-66

ACC NR: AP6018546

tions and to umklapp processes. The calculations show that the umklapp contribution is commensurate with the contribution from the intervalley electron-phonon scattering. Orig. art. has: 2 figures, 32 formulas, and 4 tables.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 002/ OTH REF: 005

Card 2/2

TRUSOV, K. Z.

23523

OZIMAYA I YAROVAYA RASY CSETROVIRN. DOKLADY AKADEM. NAUK SSSR, NOVAYA
SERIYA, T. LXVII, No. 3, 1949, c. 501-04. -- BIBLIOT: 20 NAZV.

So: LETOPIS' NO. 31, 1949

TRUSOV, L.N., inzh.

Errors in ship speed testing on measured lines. Sudostroenie
26 no.10:50-52 0'60. (MIRA 13:10)
(Ship propulsion)

TRUSOV, L. P.

Dissertation: "Effect of Fluctuations in Temperature on Resistance to Creep." Cand Tech Sci, Central Sci Res Inst of Technology and Machine Building, Moscow, 1953. (Referativnyi Zhurnal--Mekhanika, Moscow, Apr 54)

SO: SUM 243, 19 Oct 1954

STULOV, T.T.; TRUSOV, L.P.

Use of precast concrete elements in water supply pumping stations.
Vod. i san. tekhn. 1 no. 1: 14-16 Ap'55. (MLRA 8:11)
(Pumping stations) (Precast concrete construction)

TRUSOV, L.P., kandidat tekhnicheskikh nauk.

Heat resistance of 12MKh steel. [Trudy] TSHIITMSEH 71:164-175 '55.
(MLRA 9:8)

(Steel--Testing)

Trusov, L.P.

124-11-13585

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 175 (USSR)

AUTHORS: Trusov, L. P., Fedortsov-Lutikov, G. P., Mitrofanov, V. G.

TITLE: The IP-4M Creep and Endurance Testing Machine
(Mashina dlya ispytaniya na polzuchest' - dlitel'nuyu prochnost' IP-4M)

PERIODICAL: V sb.: Prochnost' metallov. Moscow, AN SSSR, 1956, pp 91-99

ABSTRACT: Bibliographic entry

Card 1/1

TRUSOV, L.P., inzhener.

Standard plans of wells and chambers in petroleum lines, water
lines, and water supply systems. Stroi.pred.neft.prom. 1 no.7:
12-14 S '56. (MLRA 9:10)

(Wells) (Waterpipes) (Petroleum--Pipelines)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756820018-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756820018-3"

TRUSOV, L.P., inzhener (Moskva); SHISHKIN, N.A., inzhener (Moskva)

Graphs for determining the thickness of walls of underground
steel pipelines. Stroi.pred.neft.prom. 2 no.5:9-12 My '57.

(MIRA 10:7)

(Pipe, Steel)

1
MATVEYEV, S.I., kandidat tekhnicheskikh nauk [deceased]; TRUSOV, I.P.
kandidat tekhnicheskikh nauk [deceased].

Effect of temperature variations on resistance to creep. [Trudy]
TSNIITMASH no.79:46-60 '57. (MLBA 10:6)
(Metals, Effect of temperature on) (Creep of metals)

TRUSOV, L.P.

Investigating the ground friction on the vertical walls of reinforced concrete tanks. Stroi. truboprov. no.9:7-9 S '64. (MIRA 17:10)

"APPROVED FOR RELEASE: 03/14/2001

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CIA-RDP86-00513R001756820018-3

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001756820018-3"

MIRKIN, I.L.; TRUBOV, L.P.; PETROPAVLOVSKAYA, E.N.

Low-alloy heat resistant steel for electric machinery manufacture.
Metalloved. i term. obr. met. no.11:4-9 N '65. (MIRA 18:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i mashinostroyeniya.

L 15215-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b)/EWA(h) JD

ACC NR: AP6002906

SOURCE CODE: UR/0286/65/000/024/0072/0072

INVENTOR: Mirkin, I. L.; Trusov, L. P.; Dubrovskaya, Ye. P.;
Vasilevskiy, P. P.; Trubitsyn, N. A.; Varovinskiy, L. M.

ORG: none

TITLE: Heat-resistant steel. Class 40, No. 177077 [announced by
the Central Scientific-Research Institute of Technology and Machine
Building (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 72

TOPIC TAGS: steel, low alloy steel, heat resistant steel, chromium
containing steel, molybdenum containing steel, nickel containing steel,
vanadium containing steel, niobium containing steel

ABSTRACT: This Author Certificate introduces a heat-resistant steel
containing chromium, molybdenum, nickel, vanadium, and niobium. To
improve the heat resistance, the content of alloying elements is set
as follows: 0.13—0.18% C, 1.8—2.3% Cr, 1.2—1.5% Mo, 0.55—0.70% V,
0.9—1.1% Ni, 0.08—0.15% Nb, and 0.005% B. [ND]

SUB CODE: 11/ SUBM DATE: 11Apr64/ ATD PRESS: 4199

Card 1/1

UDC: 669.15'26'28'24'292—194

L 31037-66 ENT(m)/EWA(d)/EMP(t)/EMP(z)/EMP(b) MJW/JD

ACC NR: AP5027701

SOURCE CODE: UR/0129/65/000/011/0004/0009

AUTHOR: Mirkin, I. L.; Trusov, L. P.; Petropavlovskaya, Z. N.

ORG: TsNIITMASH

TITLE: Low-alloy heat-resistant steels for power generating machinery

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 11, 1965, 4-9

TOPIC TAGS: power plant component, low alloy steel, heat resistant steel, pearlitic steel

ABSTRACT: Considering the exceptionally long service life of power generating equipment (at least 10-15 years), its high operating parameters (as much as 580°C and 255 atm) and the trend toward building increasingly larger boiler-turbine units, the problem of improving the quality and durability of the components and elements of this equipment is of special importance. Currently the weight of individually cast turbine elements reaches 22-25 tons, and the wall thickness of steam lines reaches as much as 65-72 mm while their diameter may even exceed 400 mm. Under these conditions the assurance of uniform structure and properties is a particularly difficult task during various operations involved in the hot and cold working of power-machinery elements: tube bending, welding, welding-up of casting defects, and subsequent heat treatment. Proper batching of the melt is also essential, since even minor deviations

Card 1/2

UDC: 669.14.018

L 31037-66

ACC NR: AP5027701

may vitiate its structure and properties. Thus, e.g. reducing the Mn content of 15Kh1M1F steel (0.14-0.20% C, 1.2-1.7% Cr, 0.9-1.2% Mo and 0.25-0.40% V) to 0.4-0.7% from 0.9-1.1% leads to a shorter incubation period of austenite transformation and, as a result, sharply increases the critical cooling rate during air quenching and causes a marked nonuniformity of structure and properties at different cross sections of large-sized castings and thick-walled tubes. Further, the equipment used for heat and power generation operates in the regime of gradually increasing deformation and progressive stressing. Hence, the principal objective should be to maximally retard these processes. For operation at 500-600°C use is made of low-alloy heat resistant pearlitic steels and moreover martensite-ferrite steels containing 10-13% Cr are being developed for this purpose. Even more rigorous requirements apply to the heat-resistant materials used for the fastening fixtures of power machinery. The permissible plastic deformation of bolts and pins is at most 0.2% over a 1.5-2 year period. Orig. art. has: 6 figures.

SUB CODE: 10, 11, 13/ SUBM. DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 2/2 *LC*

L 3669-66 ENT(m)/ENP(w)/ENA(d)/T/ENP(t)/ENP(z)/ENP(b) LJP(c) MJW/JD/JG

ACCESSION NR: AP5010375

UR/0145/65/000/003/0119/0124
669.181

AUTHORS: Mirkin, I. L. (Doctor of technical sciences, Professor); Trusov, L. P.
(Candidate of technical sciences)

TITLE: New highly heat resistant perlitic steels for power plant construction

SOURCE: IVUZ. Mashinostroyeniye, no. 3, 1965, 119-124

TOPIC TAGS: perlitic steel, ¹chrome alloy, ²molybdenum alloy, ²vanadium alloy,
low alloy steel / ¹15Kh1MIF steel, ²25 Kh2MIFB steel

ABSTRACT: ⁶Low alloy steels (less than 4% alloys) must be used to make large power plants now under design (500 000-800 000 kw operating at live steam temperature of 565C or up to 585C) economically practical. Research and practical experience have shown that chrome-molybdenum-vanadium perlitic steels are most proper for operation at such temperatures. Steel 15Kh1MIF (0.2% C, 1.5% Cr, 1.0% Mo and 0.3% V) is now basic for most turbine parts, while the C content is lowered to 0.1-0.15% in steam pipes. ¹Creep strength tests of above 25 000 hours indicate that extrapolated values to ⁵10⁵ hours of operation at 585C should be 8-9 kg/mm² for 15Kh1MIF and 9-11 kg/mm² for the steam pipe modified alloy. It is noted
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L-3669-66

ACCESSION NR: AP5010375

2

that a simple increase in alloy content does not result in improved properties, as shown by Cr-Mo-V steels in which increasing the Cr content from 1.0 to 3.0% decreased the yield strength from 63-50 kg/mm² and $\sigma_{0.2}$ from 53 to 47 kg/mm². The relaxation strength (at the same initial stresses) is found to be 1.5-2 times higher at temperatures of 565-580C for steels containing less Cr and Nb and more V (1.0-1.5% Cr, 0.7-1.0% V) than steel 25Kh2MIFB (0.2-0.3% C; 2.0-2.5 Cr, 0.8-1.0 Mo; 0.3-0.6 V; 0.3 Nb and 0.005 V). The increased part sizes of large power plants also complicate the effectiveness of heat treating processes. It has been shown that small changes in alloy content can improve heat treating properties considerably. Thus, increasing the Mn content in 15Kh1MIF from 0.4-0.7% to 0.9-1.1% decreases the critical cooling speed by one order of magnitude. The properties of low alloy perlite steels should be further improved by more complex alloying and, simultaneously with the alloy development, improved methods of heat treating and manufacturing of these special-property alloys should be introduced. Orig. art. has: 4 figures.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii mashinostroeniya (Central Scientific Research Institute of Machine Building Technology)

SUBMITTED: 28Oct64

NO REF SOV: 005

Card 2/2 B.V.K.

ENCL: 00
OTHER: 000

SUB CODE: MM

TRUSOV, L.P., kand. tekhn. nauk

Steel for cast components of boilers, turbines, and steam pipes.
Teploenergetika 12 no.3:21-24 Mr '65. (MIRA 18:6)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i mashinostroyeniya.

KRYANIN, I.R., doktor tekhn. nauk, prof.; MISKIN, I.L., doktor tekhn nauk,
prof.; THUSOV, L.P., kand. tekhn. nauk

Heat-resistant steels for thermal power engineering. Teplo-
energetika 11 no.12:2-5 D '64 (MIRA 18:2)

1. Tsentral'nyy nauchno-issledovatel'skiy Institut tekhnologii
i mashinostroyeniya.

TRUSOV, L.P.; DUBROVSKAYA, Ye.F.; MARINENKO, L.S.

Improving the properties of pearlitic heat-resistant steel. Issl. po
zharoproch. splav. 10:175-178 '63. (MIRA 17:2)

ACCESSION NR: AT4013945

S/2659/63/010/000/0175/0178

AUTHOR: Trusov, L. P.; Dubrovskaya, Ye. F.; Marinenko, L. S.

TITLE: Improving the mechanical properties of perlitic high temperature steel

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya po zharoprochny'm splavam, v. 10, 1963, 175-178

TOPIC TAGS: steel, high temperature steel, steam turbine, nickel alloy steel, manganese alloy steel, perlitic steel

ABSTRACT: Perlitic steels, mainly alloyed with chromium and molybdenum, are widely used for manufacturing power equipment (steam turbines) in the SSSR. However, the mechanical properties and heat resistance of these brands of steel are relatively low. Unification of steam turbine parts leads to production of castings with 700 mm walls weighing 12 tons. Because of these dimensions, the usual heat treatment (normalization and tempering) can not ensure the necessary uniformity of properties in the entire casting. The necessary cooling rate for normalization therefore reaches 800 C per hour, which may be lowered somewhat for steel with a high content of alloying elements. This would require modification of the available equipment for heat treatment. The authors therefore studied the effect of Ni and Mn on the critical cooling rate for castings of

Card 1/2

ACCESSION NR: AT4013945

15Kh1M1F and 15KhZM2FB5 steel. Increasing the manganese content from 0.58% to 1.19% decreased the critical cooling rate (minimum cooling rate without change in the free ferrite microstructure in the steel) from 2500C per hour to less than 50C per hour. This also increased the impact strength. Experiments were also done with addition of nickel (0.5-0.8% to 0.9-1.1%). Without nickel, the microstructure of the steel contained a significant quantity of free ferrite, and after tempering inclusions of carbides appeared in the ferrite grains. When 1% nickel was added, there was no free ferrite, the steel strength changed from 220 kG/sq mm to 375 kG/sq mm after normalization, and the steel hardness increased after tempering. The authors conclude that high quality and uniform features of large cast and wrought parts for power equipment may be achieved by introducing small quantities of nickel or by increasing the manganese content. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: Institut metallurgii AN SSSR (Institute of Metallurgy)

SUBMITTED: 00

DATE ACQ: 27Feb64

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

KRYANIN, I.R., doktor tekhn.nauk, prof.; MIRKIN, I.L., doktor tekhn.nauk, prof.;
TRUSOV, L.P., kand.tekhn.nauk

Treatment of steel for stationary steampipes with high and superhigh
parameters. Teploenergetika 10 no.6:10-15 Je '63. (MIRA 16:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i mashinostroyeniya.

(Steampipes) (Pipe, Steel)

ACCESSION NP: A13000000

S/0096/63/000/006/0010/0015

61
59

AUTHOR: Kryanin, I. R. (Doctor of technical sciences, Professor); Mirkin, I. L. (Doctor of technical sciences, Professor); Trusov, L. P. (Candidate of technical sciences)

TITLE: Steel used in stationary steam power plants operating at high ultra-high pressures and temperatures

SOURCE: Teploenergetika, no. 6, 1963, 10-15

TOPIC TAGS: power plant, steam pipe, welding, steel type, 12Kh1MF steel, 15Kh1MF steel, EI-756 steel

ABSTRACT: A study of characteristics and manufacture of steels 12Kh1MF, 15Kh1MF, and EI-756 (12Kh11V2MF) for use in 200-, 300-, 500-, and 800-Mwt power plants operating at 170 abs. atm. and 570C or at 255 abs. atm. and 585C was made at Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya (Central Scientific Research Institute of Technology and Machinery). The limit of strength in forged and perforated pipes of steel 15Kh1MF, with a wall thickness of 45-85 mm was found to be 9-10 kg/Sq mm at 585C. It was 8-9 kg/Sq mm for welded pipe joints. The test of original and welded parts indicated a high plasticity.

Cord 1/12

L 12894-63

ACCESSION NR: AP3000678

2

This perlite steel is recommended for production of steam pipes in 300-Mwt plants operating at 585C and 255 abs. atm. Table 1 (see enclosure) shows allowable and ultimate stresses for both steels at a temperature range of 520-600C. Electrode Tsl-34 is recommended for welding this material with a preheating temperature of 300-350C. The use of thick pipes made of steel 12Kh1MF for the same power plants is not recommended because of the low limit of sustained strength in this steel. Experiments on pipes of chromium-molybdenum-vanadium steel with additional ingredients will be finished in 1963. Martensite-ferrite steel EI-756 and electrodes Tsl-32 are recommended for pipes in power plants operating at 585-630C. Pisectional induction coils of both rigid and flexible types are recommended for local heating in welding straight and curved pipes. Orig. art. has: 7 figures and 4 tables.

ASSOCIATION: TsNIITMASH

SUBMITTED: 00

DATE ACQ: 21Jun63

ENCL: 01

SUB CODE: 00

NO REF SOV: 003

OTHER: 000

Card 2/32

PALITSYN, Vladimir Andreyevich, inzh.; SPEKTOR, Moisey Isaakovich, inzh.;
OSKOLKOV, Aleksey Ivanovich, inzh.; SAMOKHOTSKIY, A.I., inzh.,
ved. red.; TRUSOV, L.P., kand. tekhn.nauk, red.; SOROKINA, T.M.,
tekhn. red.

[High-temperature double-chamber electric furnace for heating
stamping billets] Vysokotemperaturnaia dvukhkamernaia elektri-
cheskaia pech' dlia nagreva zagotovok pod shtampovku. Moskva,
Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 11 p.
(Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 5.
No.M-58-206/12) (MIRA 16:3)

(Electric furnaces)

YAKOVLEV, Vasilii Akimovich, kand. tekhn. nauk; RAGAZINA, M.F., inzh.,
ved. red.; TRUSOV, L.P., kand. tekhn. nauk, red.; SOROKINA,
T.M., tekhn. red.

[Induction heating with a commercial frequency current of
aluminum and magnesium alloy ingots] Induktsionnyi nagrev to-
kom promyshlennoi chastoty slitkov iz aluminievyykh i magnie-
vykh splavov. Moskva, Filial Vses.in-ta nauchn. i tekhn. in-
formatsii, 1958. 21 p. (Peredovoi nauchno-tekhnicheskii i
proizvodstvennyi opyt. Tema 3. No.M-58-44/3) (MIRA 16:3)
(Induction heating) (Nonferrous ingots)

RAGAZINA, M.F., inzh., ved. red.; TRYASUNOVA, Ye.V., inzh., ved.
red.; TRUSOV, L.P., kand.tekhn.nauk, red.; PONOMAREV, V.A.,
tekhn. red.; SOROKINA, T.M., tekhn. red.

[Heat and chemical heat treatment of ferrous and nonferrous
metals]Termicheskaya i khimiko-termicheskaya obrabotka cher-
nykh i tsvetnykh metallov. Moskva, Filial Vses. in-ta na-
uchn. i tekhn. informatsii. Nos.1, 3-4. 1958. (Peredovoi
nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 3.
Nos.M-58-10/1, M-58-264/10, M-58-398/15. (MIRA 16:3)

(Steel--Heat treatment)
(Nonferrous metals--Heat treatment)

TRUSOV, L.P., inzh.; LYUBIMOV, I.I., inzh.

Standard plans of cylindrical reinforced concrete tanks for
petroleum products. Mont. i spets. rab. v stroi. 24 no.10:
30-31 '62. (MIRA 15:10)

(Tanks—Standards)

TRUSOV, L.P.; KUMANIN, V.I.

Refining of heat-resistant Cr-Mo-V steel with small additions of cerium.
Lit.proizv. no.4:34-37 Ap '63. (MIRA 16:4)
(Steel, Heat-resistant—Metallurgy)

1/16300, 4.5
AID Nr. 984-2 6 June

REFINEMENT OF Cr-Mo-V STEEL BY CERIUM (USSR)

Trusov, L. P., and V. I. Kumanin. Liteynoye proizvodstvo, no. 4, Apr 1963,
34-37. S/128/63/000/004/002/004

The effect of cerium on the properties of a perlitic heat-resistant steel for service at 580°C and 240 at has been investigated at the Central Scientific Research Institute of Technology and Machinery. Cerium was added as mishmetal (50% Ce, 25% La, 15% Nd, and 10% other rare-earth metals) either in furnace or ladle. It was found that 0.20% Ce decreased the total sulfur content, made the sulfide distribution more uniform, and reduced nonmetallic impurities by 30-45% and oxygen content by more than 50%. For tests of mechanical properties, the steel was annealed at 1080-1100°C for 2 hrs, aged at 740-750°C for 5 hrs, and air cooled. The addition of 0.20% Ce was found to increase the yield strength and tensile strength at 580°C from 38.2 to 41.5-42.1 kg/mm² and from 43.5 to 46-46.7 kg/mm², respectively. However, the highest notch toughness at room temperature, 13.2-16.2 kgm/cm², was obtained at 0.50-0.10% cerium. Also, the longest rupture life, 1255 or 563 hrs,

Card 1/2

AID Nr. 984-2 6 June

REFINEMENT OF Cr-Mn-V STEEL [Cont'd]

S/128/63/000/004/002/004

at 500°C under a stress of 20 kg/mm² was obtained with 0.05% cerium added in furnace or in ladle, respectively. In both cases the fracture was intergranular, while nonmodified steel had a transgranular fracture. The creep strength at 500°C and a creep rate of 10⁻⁵ % per hr was found to be 7 kg/mm², compared with 6 kg/mm² for the nonmodified steel. Oxidation resistance of the cerium-modified steels at 600, 650, and 700°C was found to be lower than that of the unmodified metal. [AZ]

Card 2/2

TRUSOV, L.P., inzh.

Precast prestressed concrete tank with a capacity of 1000 cubic meters. Mont. i spets. rab. v stroi. 23 no.7:21-22
(MIRA 14:7)
Pl '61.

1. Giprosnetspromstroy.
(Lytkatino--Tanks)
(Precast concrete construction)

MIRKIN, I.L., doktor tekhn.nauk, prof.; TRUSOV, L.P., kand.tekhn.nauk

Evaluating the resilience of welded joints in austenitic steel
steam pipes. [Trudy] TSNIITMASH 105:57-61 '62. (MIRA 15:8)
(Pipe, Steel—Welding) (Steam pipes—Welding)

S/590/62/105/000/005/015
I031/I242

AUTHORS: Mirkin, I.L., Prof., Dr. of Technical Sciences, and
Trusov, L.P., Candidate of Technical Sciences

TITLE: Performance of welded joints in steam pipe-lines made of
austenitic steels

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut
tekhnologii i mashinostroyeniya. Trudy, v.105, 1962,
57-61

TEXT: The design of steam pipe-lines is generally based on creep strength and endurance limit of the pipe metals and welds. A considerable number of failures occurred in welded joints of steam mains made of 1X14H14B2M (EI257) (1 Kh 14N 14V 2M EI257) and 1X18H12T (1 Kh 18N 12T) austenitic steels after only 700-800 hrs of operation. The tensile strength of regular and welded specimens of EI257 steel was 14 kg/mm² at 580°C after 50 000 hrs. In the case of the 1Kh18N12T steel the values at 610°C were 12.5-13.5 kg/mm²

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S/590/62/105/000/005/015
I031/I242

Performance of welded joints...

and 11 kg/mm² for regular and welded specimens, respectively. The safety factor was 2.3-3.2. The failures are due partly to high complex working stresses brought about by sharp changes in steam temperature, and partly to insufficient plastic deformation of the welds. Thus, the present design of high-pressure steam lines and welded joints, do not fully reflect the actual operating conditions. There are 2 figures and 1 table.

Card 2/2

TRUSOV, L.P., kand.tekhn.nauk; MARINENKO, L.S., inzh.

Type 15Kh1MLF steel for steam pipelines with a working temperature
of 565-585 . [Trudy] TSNIITMASH 105:71-86 '62. (MIRA 15:8)
(Steel, Heat-resistant--Testing)

S/032/61/027/011/012/016
B104/B138

AUTHORS: Mirkin, I. L., Trusov, L. P., and Alekseyeva, N. A.

TITLE: A method of testing welded seams

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 11, 1961, 1392 - 1395

TEXT: The variable cross-section specimen shown in Fig. 1 is suggested for weld tests. This shape is to prevent the specimens from breaking outside the welded region during tests. The length of the cylindrical part of the specimen is varied according to the kind of welded seam. The local strain during the experiment was determined in sections I - V shown in Fig. 1. Tests with 1Kh18N12T (1Kh18N12T) steel showed that the shape of the specimen has no effect on the nature of the fracture and does not change the long-time strength substantially. The difference between the long-time strength determined with the specimen shape described here and that determined with the conventional shape is given as being 4 - 5%. Moreover, the specimens break in the centre of cylindrical region as desired. Consequently the possible effect of stress concentrations at the cone apex is small. Results are given in the table. There are 4 figures,

Card 1/2 2

MIRKIN, I.L.; TRUSOV, L.P.; ALEKSEYEVA, N.A.

Method for testing samples of welds. Zav.lab. 27 no.11:1392-1395
'61. (MIRA 14:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i
mashinostroyeniya. (Metals--Testing)

TRUSOV, L.P., kand.tekhn.nauk; FIDORTSOV-LUTIKOV, G.P., kand.tekhn.
nauk; MITROFANOV, V.G., inzh.

Installation for testing creep and long-time strength of
heat resistant alloys. [Trudy] TSMIITMASH 100:107-115
'59. (MIRA 13:7)

(Heat-resistant alloys--Testing)

TRUSOV, L.P., kand.tekhn.nauk

Testing and using heat-resistant materials at the Cherepet'
State-owned Regional Electric Power Plant. [Trudy] TSNIITMASH
100:218-237 '59. (MIRA 13:7)
(Cherepet'--Electric power plants)
(Heat-resistant alloys)

LYUBCHIK, M.A., TRUSOV, I.P., SHUR, D.M.

Setub for the programmed testing of heat-resistant materials
for long-period strength. Zav.lab. 26 no.5:615-616 '60.

(MIRA 13:7)

(Strength of materials)

MURASHEV, V.A., prof., doktor tekhn.nauk; MIRONOV, S.A., prof., doktor tekhn.nauk; ALEKSANDROVSKIY, S.V., kand.tekhn.nauk; TAL', K.Z., kand.tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk; MULIN, H.M., kand.tekhn.nauk; SIGALOV, E.Ye., kand.tekhn.nauk; NEMIROVSKIY, Ya.M., kand.tekhn.nauk; TABENKIN, N.L., inzh. [deceased]; KALATUROV, B.A., kand.tekhn.nauk; BRAUDE, Z.I., inzh.; KRYLOV, S.M., kand.tekhn.nauk; FOKIN, K.F., doktor tekhn.nauk; GUSEV, N.M., prof., doktor tekhn.nauk; YAKOVLEV, A.I., inzh.; KORENEV, B.G., prof., doktor tekhn.nauk; DERESHKEVICH, Yu.V., inzh.; MOSKVIN, V.M.; LUR'YE, L.L., inzh.; MAKARICHEV, V.V., kand.tekhn.nauk; SHEVCHENKO, V.A., inzh.; VASIL'YEV, B.F., inzh.; KOSTYUKOVSKIY, M.G., kand.tekhn.nauk; MAGARIK, I.L., inzh.; IL'YASHEVSKIY, Ya.A., inzh.; LARIKOV, A.F., inzh.; STULOV, T.T., inzh.; TRUSOV, L.P., inzh.; LYUDKOVSKIY, I.G., kand.tekhn.nauk; POPOV, A.N., kand.tekhn.nauk; VINOGRADOV, N.M., inzh.; USHAKOV, N.A., kand.tekhn.nauk; SVERILOV, P.M., inzh.; TER-OVANESEV, G.S., inzh.; GLADKOV, B.N., kand.tekhn.nauk; KOSTOCHKINA, G.V., arkh.; KUREK, N.M.; OSTROVSKIY, M.V., kand.tekhn.nauk; PEREL'SHTEYN, Z.M., inzh.; BUKSHTEYN, D.I., inzh.;

(Continued on next card)

MURASHEV, V.A.--(continued) Card 2.

MIKHAYLOV, V.G., kand.tekhn.nauk; SIGALOV, E.Ye., kand.tekhn.nauk;
GVOZDEV, A.A., prof., retsenzent; MIKHAYLOV, V.V., prof., retsen-
zent; PASTERNAK, P.L., prof., retsenzent; SHUBIN, K.A., inzh.,
retsenzent; TEMKIN, L.Ye., inzh., nauchnyy red.; KOTIK, B.A., red.
izd-va; GORYACHEVA, T.V., red.izd-va; MEDVEDEV, L.Ya., tekhn.red.

[Handbook for designers] Spravochnik proektirovshchika. Pod ob-
shchei red. V.I.Murashova. Moskva, Gos.izd-vo lit-ry po stroit.,
arkhit. i stroit.materialam. Vol.5. [Precast reinforced concrete
construction elements] Sbornye zhelezobetonnye konstruktsii.
1959. 603 p. (MIRA 12:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledo-
vatel'skiy institut betona i zhelezobetona, Perovo. 2. Deystvitel'-
nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Murashev,
Gvozdev, Mikhaylov, V.V., Pasternak, Shubin). 3. Chlen-korresp. Aka-
demii stroitel'stva i arkhitektury SSSR (for Mironov, Gusev, Moskvina,
Kurek).

(Precast concrete construction).

TRUSOV, L.P., inzh.

Construction of storage tanks in the Hungarian People's Republic.
Nov.tekh.mont. 1 spets.rav.v stroi. 21 no.10;28-31 0 '59.

(MIRA 12:11)

1. Institut Giprosnetspromstroy.
(Hungary—Tanks) (Precast concrete construction)

SOV/95-59-6-12

14(10)

AUTHORS: Stulov, T.T. and Trusov, L.P., Engineers

TITLE: New Designs of Underground Small Capacity Reinforced Concrete Reservoirs for Oil Products

PERIODICAL: Stroitel'stvo truboprovodov, 1959, Nr 6, pp 15 - 17 (USSR)

ABSTRACT: The Institute Giprospetspromstroy has worked out standard designs for typical reinforced concrete reservoirs of 100 and 200 cu m capacity. Reservoirs (arch Nr T-1164 and T-1165) for light oil products and lubricants consist of a metal lining and gunite wall. The article describes and illustrates this simple design and inexpensive construction. After the metal lining is put in place and welded to the base plate to form a reservoir, it is filled with water and covered on the outside with gunite; the necessary equipment is mounted on 4 manhole metal covers. The gunite wall thickness is 6 cm for the 100 cu m reservoir and 8 cm for the 200 cu m reservoir. - Designs for reservoirs (arch Nr T-1160 and T-1161) for dark oil products provide for prestressed concrete reinforcement. The novelty of this method consists in the tight winding under stress of the wire round the cone-shaped surface of the reservoir. The wire does not touch the reservoir itself but passes over

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SOV/95-59-6-5/12

New Designs of Underground Small Capacity Reinforced Concrete Reservoirs for Oil Products

vertical metal stays placed on the reservoir every 40 - 50 cm. To apply correct stress, the winding-on of the wire is to be done with a tensionmeter. From the Table showing the technical and economical indices of the standard underground reservoirs, it can be seen that these consume from 30 - 80% less steel than the above-ground reservoirs. The author concludes that the proposed reservoirs are to be given preference over the above-ground tanks, due to the many advantages of the former, inasmuch as they have a longer life, keep a more even temperature and require less upkeep; there should also be considered the elimination of loss due to ("breathing") fluctuation of temperature, as observed in above-ground tanks. The described designs of reservoirs for light and dark oil products should be recommended throughout the USSR for dry soil with a seismic intensity not exceeding 6 points. There are: 2 diagrams and 1 table.

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